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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,016	05/15/2001	Jane C. Hirsh	21720	4877

23579 7590 02/24/2004

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EXAMINER	
GOLLAMUDI, SHARMILA S	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/858,016	HIRSH ET AL	
	Examiner	Art Unit	
	Sharmila S. Gollamudi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Receipt of Amendments filed September 3, 2003 is acknowledged. Claims 33-57 are pending in this application. Claims 1-32 stand cancelled.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Provisional rejection of claims 33, 35, 38-39, 41, 43, 44, 46, and 48 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 5-6, 8, 10, and 16 of copending Application No. 10/015930. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications contain similar subject matter is maintained.

Instant application claims a composition and a process of preparation with an intraoral portion for sublingual or buccal administration, specific drugs, drug amount, and a second oral portion to be released in the GI tract. Claim 35 recites the composition in a tablet or capsule form. Claims 38-39 claims a film coating. Claim 41

claims an effervescent agent in the outer coating. Claim 43 recites a sustained release formulation. Claims 44 and 46 claim a release rate of 0.5-24 hours. Claim 48 claims the outer layer dissolves within 10 minutes.

Co-pending application claims a composition and a process of preparation with an intraoral portion for sublingual or buccal administration and a second oral portion to be released in the GI tract. Claim 2 recites the composition in a tablet or compressed tablet form. Claim 6 claims a film coating. Claim 5 claims an effervescent agent in the outer coating. Claim 8 and 10 recite a sustained release formulation and a release rate of 0.5-24 hours. Claim 16 claims the outer layer dissolves within 10 minutes.

The two applications are related as genus-species. Co-pending recites a broader composition (genus) and the instant application recites a species of drugs. Instant application claims a broad sustained release formulation whereas the co-pending recites a specific sustained release composition. Instant application claims a specific outer film coating in dependent claims whereas co-pending claims a generic outer film coating.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

Applicant will file a Terminal Disclaimer upon allowance.

The examiner will withdraw rejections after filing of the Terminal Disclaimer.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Rejection of claim 51 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is maintained.

Claim 51 recites a broad number of drug categories; however claim 41 depends on claim 33, which recites specific drugs. Therefore, it is unclear what claim 51 is intended to claim.

Response to Arguments

Applicant argues that claim 41 has been amended to define the active by a molecular weight or specifically named drugs.

Applicant's arguments have been fully considered but they are not persuasive. The examiner notes the limitation of the molecular weight; however the dependent claim is unclear since claim 51 does not specify that the actives in 51 are limiting the molecular weight actives of claim 41. The claim reads as though applicant is limiting both the molecular weight actives and specifically named drugs, which renders the claim unclear. If the applicant is intending to limit the molecular weight drugs to the listed categories in claim 57, then the examiner suggests restructuring claim 51 to read "wherein the active ingredient having a molecular weight not exceeding 350 Daltons is selected from the group consisting of...."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Rejection of claims 33-43, 45, 47, 49-57 under 35 U.S.C. 103(a) as being unpatentable over Barclay et al (5,053,032) is maintained.

Barclay et al disclose an osmotic device for delivering a beneficial agent. Barclay's tablet houses two regions, one for buccal administration of a drug and a second region for delivering a drug to the GI tract (Note abstract, col. 8, lines 28-51). Further, the tablet contains a signaling in the form of a flavoring agent or coloring agent that alerts the patient that the buccal administration dosage has been delivered and the remainder may be swallowed (col. 3, lines 57-68, col. 5, lines 25-55). The reference discloses several drugs including instant drug prochlorperazine, nitroglycerine, etc. that are suitable for the delivery device on column 10, line 50 to column 11, line 35. The instant amount of the drug is taught on column 12, lines 23. Barclay discloses the process of making the device and compression of the layers (example 1). Osmagents such as sodium carbonate are taught in the osmotic device. See column 12 lines 27-45.

In one example an ibuprofen and HPMC layer overcoat a device containing ibuprofen, excipients, and a signaling system. See example 3.

Barclay does not exemplify the instant drugs.

It is deemed obvious to one of ordinary skill in the art at the time the invention was made to utilize the instant drugs since Barclay teaches various drugs including instant drugs that are suitable for use in the invention. Therefore, one would be motivated to use the drug of choice depending on the symptom to be treated.

Response to Arguments

Applicant argues that Barclay does not disclose the drugs that are claimed. Applicant argues that Barclay does not disclose the first component for sublingual administration and second portion in a sustained release device. It is argues that Barclay teaches an osmotic device which teaches away from sustained release or chewable formulation. Applicant argues that Barclay teaches delivering the same drug in to the oral cavity and not two different drugs. Applicant argues that Barclay's device is retained in the mouth for a period of 0.5-12 hours and instant invention teaches dissolution in ten minutes.

Applicant's arguments have been fully considered but they are not persuasive. Firstly, the examiner points out that independent claims recite prochlorperazine, which Barclay clearly teaches on column 10, lines 52-53 or an active with a molecular weight not exceeding 350 Daltons (nitroglycerin), which is also taught by Barclay. It is noted that Barclay does not exemplify the instant drug; however disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or

nonpreferred embodiments. See In re Susi. Applicant argues that Barclay makes no distinction between two different classes of drugs; however the examiner points out that the instant drug is taught as set forth above and the instant categories of drug are taught as the applicant. Further, the applicant's claims do not make a distinction between the drugs in either portion either.

Secondly, the examiner points out that the osmotic device of Barclay is utilized for controlled delivery of an active agent over an extended period of time. See column 4, lines 5-9. It is further pointed out that the recitation of "chewable formulation" does not limit the composition since the term chewable is intended use and the applicant is claiming a product. Therefore, the patentability lies with the product/composition and not the use of the product after administration. It should be noted that the limitation of claim 34 does not limit the product claim because the limitation recites intended use in a product claim.

In regards to the term sublingual versus buccal, it is again pointed out that the applicant is claiming a product and not a method of administering; therefore the terms do not provide a structural limitation since the product is capable of performing said function. However for arguendo sake, the examiner points out that the intent of buccal and sublingual administration are the same. Both sublingual and buccal require the dosage form to be placed in the mouth and utilize mucosal membranes for transport of the active agent, regardless of where, i.e. under the tongue versus next to the cheek, it is placed (again this is intended use of the dosage form).

In regards to the applicant's use of two different actives, the examiner points out that the rejected claims do not reflect this and applicant's argument is relying on a feature that is not a limitation in the claims.

Lastly, the *rejected* claims do not limit the claims to the first portion dissolving in ten minutes. Therefore, the applicant is relying on a feature that is not limitation in the rejected claims.

Rejection of claims 33-43, 45, 47-57 under 35 U.S.C. 103(a) as being unpatentable over Griffin (5,702,723) in view of Lewis et al (4,661,492) is maintained.

Griffin teaches a multi-stage pill having an outer layer comprising an active substance that will dissolve, an inert layer, and a core with a substance that works within the body such as the gastrointestinal tract or systemically. See column 3, lines 1-12. The coating is quick dissolving and contains a flavor or sweetener. The outer coating can include calcium carbonate, etc. See column 4, line 3. The coating is made of HPMC and plasticizers. The inert layer acts to control the rate of release if desired. See column 4, lines 5-23. Griffin teaches many possible drug combinations for the buccal administration and the GI administration such as analgesic, antibiotics, etc.

Griffin does not teach the instant drug and dosage.

Lewis et al teach an analgesic composition that may be in a sublingual form or parenteral. The analgesic, buprenorphine, is included in the therapeutic amount of 0.1 mg to 0.4 mg sublingually for the treatment of pain. See column 2, lines 61-66.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Griffin and Lewis et al and incorporate the instant drug and dosage amount. One would be motivated to look at Lewis since Lewis teaches the use of buprenorphine to treat pain in the instant amount sublingually. Further, one would expect similar results and success by using instant drug since Griffin discloses the use of analgesics and further states that the use of other drugs is apparent to those skilled in the art.

Response to Arguments

Applicant argues that Griffin teaches a coating of HPMC which would delay the release. Applicant argues that Griffin does not teach a sublingual coating. Further, applicant argues that the calcium carbonate of Griffin would prevent sublingual absorption. Applicant argues that Lewis merely discloses a particular combination of drug therapy for sublingual or parenteral delivery. Lewis does not describe which drug should be delivered sublingually and which should be swallowed.

Applicant's arguments have been fully considered but they are not persuasive. Firstly, the examiner points out that dependent claim 33 requires an outer film coating and HPMC is part of the Markush group. Therefore, applicant's arguments directly contradict applicant's invention since if Griffin's coating delays the device, then applicant's device would work the same way. Furthermore, column 3, lines 35-38 clearly state that the coating is quick-dissolving.

Secondly, the examiner again points out that the applicant is claiming a product and applicant is reciting intended use of the product. Intended use of a product claim is

not given patentable weight especially if the product is capable of performing said intended use unless it provides a structural limitation. Applicant argues that sublingual is a structural limitation; however it is not. Sublingual administration is defined as administering a device under the tongue and the active is absorbed via the blood vessels in the mouth. In instant case, if the prior art teaches a dosage form, the dosage form can be placed in the mouth and will eventually dissolve providing the active to the blood vessels in the mouth, regardless of how the prior art teaches administration. Therefore, it is said that the prior are is capable of performing said intended use and thus the intended use does not provide a structural limitation to the product.

However for arguendo sake, the examiner points to column 3, lines 54-60 and column 4, lines 24-40 wherein it is clear that Griffin teaches a locally acting exterior with a interior that is meant for the GI tract. Griffin clearly states the "outer coating can also provide a vehicle for a locally absorbed medication while the interior...suitable for gastric disintegration and absorption.

Lastly, the examiner points out that claim 41 requires an effervescent agent without any limitation, i.e. at a specific pH as argued, in the first intraoral portion. Therefore, since calcium carbonate is an effervescent agent and it clearly reads on the broad scope of the instant claims. The applicant's arguments that calcium carbonate will prevent sublingual absorption clearly contradict instant invention since instant claims also require an effervescent agent and would cause an enablement problem.

In regards to Lewis et al, the examiner relies upon Lewis et al for its specific teaching of the instant drug buprenorphine. Griffin teaches the use of an analgesic to

treat sore throat and a cold ingredient for gastric absorption. Thus, one would be motivated to use the instant drug since Lewis clearly teaches that buprenorphine is an analgesic that is capable of sublingual release. Therefore, one would reasonably expect success by utilizing instant drug in Griffin's dosage form.

The examiner thanks the applicant for correcting the error made by the examiner in the opening line of the rejection. The examiner clarifies that the body of the rejection reflect the intent of the rejection in view of Lewis et al.

Rejection of claims 44 and 46 under 35 U.S.C. 103(a) as being unpatentable over Griffin (5,702,723) in view of Jordan et al (4,814,181) is maintained.

As set forth above, Griffin teaches a multi-stage oil having an outer layer comprising an active substance that will dissolve, an inert layer, and a core with a substance that works within the body such as the gastrointestinal tract or systemically. See column 3, lines 1-12. The coating is quick dissolving and contains a flavor or sweetener. The outer coating can include calcium carbonate, etc. See column 4, line 3. The coating is made of HPMC. The inert layer acts to control the rate of release if desired. The thickness and composition of the layer determines the release of the active. Polymers such as HPMC and EVAC cellulose or other suitable materials in the art may be used to obtain these results. See column 4, lines 5-23. Griffin teaches many possible drug combinations for the buccal administration and the GI administration such as analgesic, antibiotics, etc.

The reference does not specifically teach the time period of the sustained release.

Jordan et al teach a dosage form containing a fast agent delivery and a slow agent delivery. Jordan teaches the method of making fast releasing layers and slow releasing layers by manipulating the components in the composition to obtain the desired delivery rate col.4, line 53 to col. 7, line 20). The fast release lamina is taught to deliver in the first hours of operation and the slow releasing lamina is taught to release between 1.5 to 14 hours (col. 4, line 36 to col. 5, lines 37). Jordan teaches the instant polymers such as PEG and HPMC to manipulate the release rate. Further, Jordan teaches the inclusion of effervescent agents in the fast lamina to increase the disintegration time.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Griffin and Jordan et al. One would be motivated to do so since Jordan et al teaches the manipulation of components in a dosage form to vary the release rates. Further motivation to do so with a reasonable expectation of success is that Griffin teaches that the layer's composition may be manipulated to the desired release rate. Therefore, one would be motivated to manipulate the prior art's composition to yield the desired release rate.

Response to Arguments

Applicant argues that Jordan does not make-up the deficiencies of Griffin.

The examiner has addressed applicant's arguments regarding Griffin. The examiner relies on Jordan to teach the sustained release of the interior portion of Griffin's tablet. Jordan teaches the state of the art and demonstrates that it is within the skill of an ordinary artisan at the time the invention was made to manipulate the

conditions of the prior art and change the release profile of a device to yield the desired rate of delivery. A skilled artisan would look to Jordan and utilize certain polymers to delay release of an active. Further, one Jordan teaches the use of effervescent agents to release actives rapidly.

New Rejections based on Amendments Filed

Claims 33-39 and 42-50, 52-53, 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 800,973 in view of Lewis et al (4,661,492).

GB teaches a multi-layered tablet wherein the outer coating contains a medicament that readily dissolves in the mouth, a signal layer containing a distinctive flavor, an enteric layer, and an oral medicament layer to be swallowed. See figures. GB discloses that the enteric layer may be manipulated with a certain thickness to release the medicament in a given area or time, which is known in the art. See page 2. Drugs that are suitable are nitroglycerine in a therapeutically effective amount. See example 2.

GB does not teach instant drugs.

Lewis et al teach an analgesic composition that may be in a sublingual form or parenteral. The analgesic, buprenorphine, is included in the therapeutic amount of 0.1 mg to 0.4 mg sublingually for the treatment of pain. See column 2, lines 61-66.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of GB and Lewis et al and incorporate the instant drug and dosage amount. One would be motivated to look at Lewis since Lewis teaches the use of buprenorphine to treat pain in the instant amount sublingually. Further, one would be motivated to utilize the drug of choice depending on the disease

and symptom to be treated; therefore if one wanted to treat pain, one would utilize the instant analgesic.

Response to Arguments

Applicant argues that GB does not teach an immediate release first agent with an effervescent agent and a second agent that is chewable.

Applicant's arguments have been fully considered but they are not persuasive. Firstly, the examiner points out that the rejected claims do not require an effervescent agent in the coating. Secondly, the examiner points out that without specific parameters in terms of "immediate, rapid, and sustained" the prior art reads on the formulation. Furthermore, example 1 teaches the prompt action of one drug and the delayed action of the other, which satisfies applicant's broad limitations. Lastly, the term "chewable" is intended use and does not hold patentable weight since the prior art is capable of performing said function.

Note that this rejection is new based on the applicant's amendment in claim 33 wherein applicant removed the phrase "the active ingredient having a molecular weight not exceeding 350 Daltons." GB in view of Leslie et al was based on this limitation since nitroglycerin has the molecular weight recited in claim 33.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-242-0614. The examiner can normally be reached on M-F (8:00-5:00) with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSG

February 17, 2004

MICHAEL G. HARTLEY
PRIMARY EXAMINER